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Report to the Federal Communications Commission on Carrier Efforts Toward Attaining Digital TTY Accessibility, and the Status of the Various Technological Solutions, as Provided by CC Docket No. 94-102, In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems

California RSA #3 Limited Partnership, A California Limited Partnership, d/b/a Golden State Cellular ("Golden State"), by its attorneys, pursuant to the Federal Communications Commission's ("Commission") *Fourth Report and Order* in CC Docket No. 94-102,[1] hereby files a Quarterly Report for the quarter ending September 30, 2001, detailing its efforts towards attaining digital TTY accessibility, and the status of the various technological solutions that will help it attain that goal.

In the *Fourth Report and Order* the Commission established December 31, 2001 as the new deadline for carriers operating digital wireless systems to have obtained all software upgrades and equipment necessary to make their systems capable of transmitting 911 calls from TTY devices. It further established June 30, 2002 as the deadline for carriers to integrate, test and deploy the technology in their systems in conjunction with the public safety community. In order to be assured that the aforementioned deadlines will be met without complication, the Commission required digital wireless carriers to submit Quarterly Reports fifteen days after the end of each quarter.[2] Golden State exclusively provided AMPS service in its service area, and thus has not previously filed Quarterly Reports with the Commission. However, on October 5, 2001 Golden State deployed digital CMRS wireless service in its service area and thus now files this instant report with the Commission.

I. Carrier Background

Golden State provides analog and has recently deployed digital CMRS wireless service in the California 3 RSA.[3] Golden State intends to do everything within its power to comply with the requirements of 20.18(c) of the rules, to provide hearing-impaired persons with TTY access via the 911 dialing code over its digital wireless network. However, the ability for TTY devices to actually transmit calls over the CDMA digital portion of Golden State's network is wholly dependent upon the availability of the required infrastructure hardware and software and compatible handsets in sufficient time to meet the Commission's deadline. Golden State respectfully submits that these items are both beyond Golden State's control. Accordingly,

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[1] In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Fourth Report and Order*, CC Docket No. 94-102, 15 Fcc Rcd 25216, 65 Fed. Reg. 82293 (December 28, 2000), ("*Fourth Report and Order*").

[2] *Id.*

[3] Station KNKN240 (CMA338B).

Golden State has requested information and a status update from its network infrastructure and handset providers regarding their ability to meet the Commission's deadlines.

II. Access to E911 Through TTY Devices

A. Development Activities

Golden State utilizes analog AMPS and CDMA digital equipment provided by Nortel Networks ("Nortel") for its wireless network infrastructure. In response to Golden State's inquiry, Nortel has provided a status update on its progress in achieving full compliance with the Commission's rules for the Golden State infrastructure. Nortel's response is appended hereto as **Exhibit A**. Golden State is not independently capable of verifying the information presented below, but has no reason to believe that it is not accurate.

While Golden State provides service to a number of brands of certified handsets owned by its subscribers and roamers entering its market, Golden State's primary handset provider for subscriber equipment sold by Golden State are Nokia and Motorola. Golden State has requested that Nokia and Motorola provide information on their progress in achieving full compliance with the Commission's rules with their CDMA handsets. Motorola's response is appended hereto as **Exhibit B**. Golden State is not independently capable of verifying the information presented therein, but has no reason to believe it is not accurate. Golden State has not yet received a response from Nokia, and therefore cannot report on its development activities. In the past, however, Nokia provided this information directly to the Commission in its own quarterly report. Golden State presumes that Nokia will follow the same procedure for this quarter.

The appended information from Nortel and Motorola is respectfully submitted in response to these issues, as required in the Commission's *Fourth Report and Order* (rel. Dec 14, 2000).

(1) Network Infrastructure Software Development

(2) Handset Development and Testing Plans

(3) Beta Testing and Lab Testing

(4) Release and General Availability to Carriers of Network Infrastructure Software

(5) Availability to Carriers of Full Acceptance Test Units

(6) Efforts Toward Achieving Digital Wireless Solution Compatibility With Enhanced TTY Devices

B. Testing and Deployment Activities

Once equipment becomes available, Golden State will perform the appropriate tests. The specific details of a time line to implement 911 access to TRS via TTY devices over the digital wireless network, and other issues related to such implementation, including handset development and testing, are tied to the technical specifications of the subscriber equipment that is being developed to provide TTY compatible service. As such, they are beyond the scope of information which Golden State can provide. Such questions are more appropriately addressed by equipment vendors because the equipment vendors, and not the licensees, are directly involved in developing compliant equipment.

Because of the lack of available infrastructure hardware and software and compatibly handsets, Golden State has yet to undertake any testing and development activities. However, Nortel's response has included some recommended testing procedures which, as of this point in time, Golden State intends to follow once the requisite infrastructure and subscriber hardware and software is available. The Nortel and Motorola responses address these issues, as set forth in the Commission's *Fourth Report and Order*.

(7) Carrier Coordination of Testing With PSAP

(8) Carrier Testing Activities, Including Field Testing, Consumer End-to-end Testing, and Other Necessary Tests

(9) Retail Availability of Necessary Consumer Equipment

(10) Geographic Scope of Network Infrastructure Deployment

III. Conclusion

As soon as the issues surrounding TTY access over digital networks are resolved, and assuming they are completed in a timely manner, Golden State intends to promptly and fully comply with the requirements of the *Fourth Report and Order*, to obtain all software upgrades and equipment necessary to make their systems capable of transmitting 911 calls from TTY devices by December 31, 2001, and to integrate, test and deploy the technology in their systems in conjunction with the public safety community by June 30, 2002 but, respectfully submits, that its ability to do so, as of this point in time, remains entirely beyond its control. As required, Golden State will provide the Commission with quarterly updates on the status of development and deployment, as advised by Golden State's infrastructure and handset vendors and, if necessary, will seek a waiver of the applicable deadlines if the requisite equipment and software does not actually become available in sufficient time to enable Golden State to meet the deadlines.

Respectfully Submitted,

California RSA #3 Limited Partnership, A
California Limited Partnership,
d/b/a Golden State Cellular

October 15, 2001

/s/ Anna E. Ward
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It's Attorneys

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EXHIBIT A

CDMA TTY/TDD Regulatory FAQ/RFI

Oct 10, 2001

Enclosed is information regarding Nortel Networks' plans to comply with FCC's TTY requirements for CDMA service providers.

- What is the status of TTY/TDD network infrastructure software/hardware development and testing?

  Nortel response: Nortel Networks' development and product test is based on current standards: IS-127-2 (EVRC) & IS 733-1(13K Vocoder). New revisions of these standards namely IS-127-3 (EVRC TTY) & IS-733-2 (13K TTY) have been published as of September 2001. Nortel Networks plans to support this new addendum to the standards in 2002. Operators will be able to deploy the Nortel Networks TTY solution based on the current standards IS-733-1, IS127-2 to meet the FCC deadline for implementation. Nortel Networks has completed testing using prototype mobile handsets from only a few vendors, which have shown positive results. Nortel Networks does not anticipate performance issues with any other vendor's handsets once they come available.

- What is Nortel Network's TTY/TDD plans to test and confirm solution performance including additional tests referenced in Sections 20-23 of the FCC 4th Rule and Order 12-14-2000?

  Nortel response: Regarding Section 20-23, Turbocode and HiSpeed is each a proprietary feature of TTY device vendors Ultratec and Ameriphone, respectively. Due to the code being proprietary Nortel Networks will not test or support these enhanced solutions. Standards are designed to avoid supporting proprietary methods, and Nortel Networks is not aware of any effort to standardize these proprietary features.

- What are the hardware baseline and software baseline to support CDMA TTY/TDD functionality?

  Nortel response:

Regulatory solution required	CDMA HW/SW baseline
TTY/TDD	MTX09 SW (DMS-MTX) NBSS10.1.1 SW (BSS) TTY capable handsets (3rd party)

- What software baseline must the MTX be running in order to upgrade to MTX10 and/or NBSS10.1.1?

  Nortel response: The MTX is required to be running MTX09 in order to upgrade to MTX10 and/or NBSS10.1.1. Nortel Networks has always maintained an allowance for CSP or Communication Services Platform "jumps" from MTX release to MTX release. The MTX has received significant changes due to moving to a multi-processing architecture thus the CSP layer has evolved to CSP14. It is because of this very different CSP14 layer of the MTX10 release that an MTX cannot upgrade safely from MTX08 directly to MTX10.

- What is the Network infrastructure software/hardware planned general availability dates that support the deployment of this regulatory feature?

  Nortel response: In order to comply with the FCC's December 31, 2001 requirement for TTY/TDD, Nortel Networks commits to delivering the enabling software as follows:

Software load	CDMA SW general availability
MTX09	Now Available
NBSS10.1 with MTX09	October 12, 2001
MTX10 CDMA	December 7, 2001

- How is the software/hardware for TTY/TTD subscribers provisioned in the network?

  Nortel response: The provisioning for TTY must be done the same way as for the voice subscribers.

- What is the schedule for deployment of the software/hardware in the network?

  Nortel response: The minimum baseline software requirements for this functionality are given above. For questions related to scheduling its deployment into a carrier's network, please contact Nortel Networks Product Deployment.

- For TTY/TDD what are the plans to work with any wireless carrier to perform end-to-end customer tests, and when will this occur?

  Nortel response: The verification process for NBSS 10.1 with the customer began in June 2001. Nortel has recommended that the operator engage their chosen CDMA TTY handset vendor during the verification process or VO process to participate in interoperability testing with the Nortel Networks solution. Nortel Networks recognizes that to date few if any handset vendors have published GA dates for TYY mobile handsets. To Nortel Networks' knowledge, as of October 10, 2001, TTY capable handsets and compatible TYY/TTD devices have not been acquired by any of our service provider VO partners. Despite this fact, Nortel Networks' will not delay the delivery of this software load to all customers planned October 12, 2001. This decision not to delay is driven by the importance of the TTY feature, and the positive results of the TTY/TTD internal testing. The general availability of this SW solution will allow a greater number of our customers to become verification partners. Nortel Networks' forecast for this specific feature's full verification is planned to occur in the mid-October and in the November time frame with two of our lead customers, respectively.
  Operators are also encouraged to request their handset vendors to test their commercial grade CDMA TTY capable handsets in Nortel's Wireless Interoperability Lab.
  All verification activities are dependent upon the availability of commercial grade CDMA TTY/TTD handsets.

- What are Nortel Network's plans to test their own or other vendor handsets with your switch solution?

  Nortel response: Nortel Networks provides only infrastructure for wireless networks. Nortel Networks does not provide mobile handsets. Even though the infrastructure software is scheduled in advance of the Dec 31, 2001 FCC requirement, commercial handset general availability dates have not been scheduled by handset vendors. Nortel Networks recommends that the operator engage its handset vendor(s) in order to respond to the FCC regarding commercially available handset.

Operators are encouraged to request their handset vendors to test their commercial grade CDMA TTY capable handsets in Nortel's Wireless Interoperability Lab.

Please contact Cher Bruce for scheduling TTY testing in the Nortel Networks Wireless Interoperability Lab, where testing is based on current published standards (Phone: 972-684-2299; Fax: 972-684-3881; csbruce@nortelnetworks.com)

EXHIBIT B

MOTOROLA
TTY COMPATIBILITY DEVELOPMENT STATUS REPORT
3rd Quarter 2001

Product	Standard	Status	Milestones	Progress
CDMA Handset	IS 127-3 IS 733-2	Integration & System Test	IOT: June 2001 UI: October 2001 ROM: December 2001 SA: 1Q 2002	Planning to participate in November ATIS testing with Sprint.
GSM Handset	TS 26.226 TS 26.230 TR 26.231	Integration & System Test	UI: October 2001 IOT: October 2001 ROM: December 2001 SA: 1Q 2002	Mobile to Mobile calls are functional. Optimization activities are on-going. IOT will start in October.
iDEN Handset		Beta in customer's lab	On plan	
TDMA Handset	IS 823-A IS 840-A	Integration & System Test	IOT: September 2001 UI: September 2001 ROM: October 2001 SA: 1Q 2002	Tested at AWS in Naperville, IL using Lucent Infrastructure. Tested both AMPS and TDMA.
CDMA Infrastructure	IS 127-3 IS 733-2	Ready for FOA	Field Testing: Nov 13-15, 2001	Infrastructure software in field has digital TTY support available now. Only handsets are needed to commence FOA.
iDEN Infrastructure		Beta in customer's lab	On plan	

Note: Motorola works with its carrier customers to provide them specific information related to their respective products.

Note: IOT is Inter Op Testing with RAM based parts for Character Error Rate testing
UI is User Interface testing with HCO / VCO support
ROM is the availability of ROM based phones. These should be functionally identical to a RAM phone.
SA is Ship Acceptance of production volume quantities

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CERTIFICATE OF SERVICE

I, Carol A. Mindzak, a secretary with the law firm of Kurtis & Associates, P.C., do hereby certify that I have this 15th day of October 2001, filed the foregoing "REPORT TO THE FEDERAL COMMUNICATIONS COMMISSION ON CARRIER EFFORTS TOWARD ATTAINING DIGITAL TTY ACCESSIBILITY, AND THE STATUS OF THE VARIOUS TECHNOLOGICAL SOLUTIONS, AS PROVIDED BY CC DOCKET NO. 94-102, IN THE MATTER OF REVISION OF THE COMMISSION'S RULES TO ENSURE COMPATIBILITY WITH ENHANCED 911 EMERGENCY CALLING SYSTEMS" electronically with the Federal Communications Commission's Electronic Comment Filing System. I have also filed a diskette copy of this report with the Federal Communications Commission's copy contractor, Qualex International. In addition, on this date, I have served copies of this Report via hand delivery or e-mail to the following:

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